

REMARKS/ARGUMENTS

In response to the Office Action dated June 13, 2007, claims 35, 36, 38 and 48 have been amended. Claims 35-51 are now active in this application. No new matter has been added.

The indication that claims 39 and 40 are objected to, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims, is acknowledged and appreciated.

OBJECTION TO CLAIMS

Claims 35 and 36 have objected to. The Examiner maintains that there is insufficient antecedent support for "the corresponding opening" at lines 17 and 19 of claim 35, and at line 4 of claim 36.

By this response, claims 35 has been amended to address this objection by changing "the corresponding opening" to "a corresponding opening", and claims 36 has been amended to recite "said each of the locking portions penetrates a corresponding opening in a contactless manner." Therefore, withdrawal of the objection to claims 35 and 36 is respectfully solicited.

The amendments to claims 35 and 36 are non-narrowing claim amendments.

The Examiner further contends that "provided in each of four region" at line 5 of claim 35 is grammatically incorrect. However, the actually recited phrase is "provided in each of four regions". That is, "region" is not recited; "regions" is recited.

It is noted further that the present Office Action contains other errors, such as the name of the inventor of JP2000-331518, which is incorrectly designated as "Keihan" when it is in fact "Kamogawa."

In view of the apparent errors in the present Office Action, any subsequent Office Action should not be made final.

REJECTION OF CLAIMS UNDER 35 U.S.C. § 102 AND § 103

I. Claims 35, 37, 48, 49 and 51 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Keihan (JP 2000-331518).

The rejections are respectfully traversed.

With regard to independent claim 35 (as it stood at the time of the previous response), the Examiner states that “Keihan teaches a lighting apparatus comprising:

an optical member; and
a plurality of locking portions, wherein,
in cases where a light emitting plane of the optical member is parallel to a vertical direction, at least one opening is provided in each of four regions of the optical member that are demarcated by a line parallel to the vertical direction that passes through the center of gravity of the light emitting plane of the optical member and a line parallel to a horizontal direction that passes through the center of gravity,
in each of the four regions, the locking portions penetrates the at least one opening,
regardless of which two adjacent regions of the four regions are positioned vertically above with respect to the center of gravity when the lighting apparatus is set, the optical member is suspended by the locking portion penetrating the at least one opening in a vertically upper and horizontally left region with respect to the center of gravity, and by the locking portion penetrating the at least one opening in a vertically upper and horizontally right with respect to the center of gravity, as an upper peripheral portion of each locking portion abuts on an upper-edge portion of the corresponding opening, and
in vertically lower side with respect to the center of gravity of the optical member, each of the locking portions penetrates the corresponding opening such that the optical member is not subjected to the stress caused by its own weight in the vertically upward direction, nor is it subjected to the stress caused by its contact in the vertically downward direction with the locking portion.”

However, Keihan does not disclose that, when the light emitting plane of the optical member is parallel to a vertical direction, regardless of which two adjacent regions of the four regions are positioned vertically above with respect to the center of gravity when the lighting apparatus is set, the optical member is suspended by the locking portion penetrating the at least one opening in a vertically upper and horizontally left region with respect to the center of gravity, and by the locking portion penetrating the at least one opening in a vertically upper and horizontally right with respect to the center of gravity, as an upper peripheral portion of each locking portion abuts on an upper-edge portion of the corresponding opening, and in vertically lower side with respect to the center of gravity of the optical member, each of the locking portions penetrates the corresponding opening such that the optical member is not subjected to the stress caused by its own weight in the vertically upward direction, nor is it subjected to the stress caused by its contact in the vertically downward direction with the locking portion [feature (*1)].

Thus, in accordance with the invention recited in independent claim 35, when the light emitting plane of the optical member is parallel to a vertical direction, regardless of which two adjacent regions of the four regions are positioned vertically above with respect to the center of gravity when the lighting apparatus is set, the above feature (*1) is realized. On the other hand, in accordance with Keihan, when the light emitting plane of the optical members 6, 7 are parallel to a vertical direction, if the lighting apparatus is set as shown in Fig. 3 such that the projections 34 and the cutouts 51, 61 are positioned above and below in the vertical direction, the optical member would not be able to be suspended by the projections 34 and the cutouts 51, 61 located vertically above. In addition, the optical members 6, 7 would be subjected to the stress by their own weight in the vertically upward direction,

such that the feature (* 1) would not be realized. As a result, the portion above the center of gravity would be bent as the apparatus increases in size, unable to withstand the weight of the optical members.

Thus, independent claim 35 (as it stood at the time of the previous response) is patentable over Keihan, as are dependent claims 36 (as it stood at the time of the previous response) and 37.

With regard to independent claim 48 (as it stood at the time of the previous response), the Examiner states that "Keihan teaches a lighting apparatus, comprising:

an optical member having a plurality of cutout portions; and
a plurality of locking portions associated with the cutout portions,
wherein,

the light apparatus comprising at least for sets of opening and the locking portion that penetrates the opening, wherein

in cases where a light emitting plane of the optical member is parallel with a vertical direction, the cutout portions are formed in each end-sides of the optical member at the top, bottom, left, and right of the optical member with respect to the center of gravity of the light emitting plane, such that the cutouts can be engaged with the locking portions, and

regardless of which of the top, bottom, left, right end-sides comes at the top when the lighting apparatus is set, the optical member is supported by an upper internal edge of each of the cutout portions in the left and right end-sides of the optical member abutting on the locking portion adapted to be engaged with the cutout portion."

However, Keihan does not disclose the feature of independent claim 48 that the cutout portions are formed in each end-sides of the optical member at the top, bottom, left, and right of the optical member with respect to the center of gravity of the light emitting plane, such that the cutouts can be engaged with the locking portions. Namely, Keihan does not disclose that the cutout portions are provided in the four end-sides. Even with reference to Fig. 2, as noted by the Examiner, the cutout portions are provided in only two end-sides.

Thus, Keihan does not disclose that when the light emitting plane of the optical member is parallel with a vertical direction, regardless of which of the top, bottom, left, right end sides comes at the top when the lighting apparatus is set, "the optical member is supported by an upper internal edge of each of the cutout portions in the left and right (and not in the top and bottom) end-sides of the optical member abutting on the locking portion adapted to be engaged with the cutout portion [feature (*2)].

In accordance with the invention recited in independent claim 48, when the light emitting plane of the optical member is parallel with a vertical direction, regardless of which of the top, bottom, left, right end-sides comes at the top when the lighting apparatus is set, the optical member can be supported in the manner of the feature (*2). On the other hand, in the case of Keihan, when the light emitting planes of the optical members 6, 7 are parallel to a vertical direction, if the lighting apparatus is set such that the projections 34 and the cutout portions 51, 61 are positioned at the vertically top and bottom positions, the optical members 6, 7 would be subjected to the stress in the vertically upward direction due to their own weights, so that, as the apparatus increases in size, the upper portion would be significantly bent, unable to withstand the weight of the optical members.

Thus, independent claim 48 (as it stood at the time of the previous response) is patentable over Keihan, as are dependent claims 49-51.

II. Claims 38, 42, 43, 46 and 47 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Keihan in view of Wang et al. (U.S. 2001/0055075).

The rejections are respectfully traversed.

With regard to independent claim 38 (as it stood at the time of the previous response), the Examiner states that "Keihan teaches a lighting apparatus comprising:

an optical member having a plurality of openings; and
a plurality of locking portions,
the lighting apparatus comprising at least four sets of the opening and the locking portion that penetrates the opening, wherein,
in a basic position of the lighting apparatus in which a light emitting plane of the optical member is parallel with a vertical direction, the optical member is suspended by at least one of the sets of the opening and the locking portion that penetrates the opening, as they are engaged with one another in a vertically upper side with respect to the center of gravity of the optical member,
in vertically lower side with respect to the center of gravity of the optical member, each of the locking portions penetrates the corresponding opening such that the optical member is not subjected to the stress caused by its own weight in the vertically upward direction, nor is it subject to the stress caused by its contact in the vertically downward direction with the locking portion,"

The Examiner notes that Keihan does not teach the lighting apparatus being rotated from the basic position in the plane of the optical member. In this regard, the Examiner states that Wang et al. teaches the lighting apparatus is rotated from the basic position in a direction within the plane of the optical member while the light emitting plane of the optical member remains parallel with the vertical direction, and that these can be readily combined.

However, as shown in Fig. 2 of Keihan, where if it is assumed that the basic position is such that the optical member is supported by the cutouts 51, 61 and the projections 34 on only the left and right end-sides of the four, i.e., top, bottom, left, and right, end-sides of the optical member, if the lighting apparatus is rotated by 90° in the plane of the optical member from the basic position, the cutouts 51, 61 and the projections 34 would only be located at the top and bottom end-sides of the optical member. As a result, the optical member would not be able to be suspended by the projections 34 and the cutouts 51, 61 at the vertically top side, and the optical

members 6, 7 would be subjected to the stress by their own weights in the vertically upper direction.

As a result, Keihan does not disclose the features of independent claim 38, that, either in a basic position of the lighting apparatus in which a light emitting plane of the optical member is parallel with a vertical direction, or in a first stop position thereof that is taken when the lighting apparatus is rotated from the basis position in the plane of the optical member while the light emitting plane of the optical member remains parallel to a vertical direction, the optical member is suspended by at least one of the sets of the opening and the locking portion that penetrates the opening, as they are engaged with one another in a vertically upper side with respect to the center of gravity of the optical member, and in a vertically lower side with respect to the center of gravity of the optical member, each of the locking portions penetrates the corresponding opening such that the optical member is not subjected to the stress caused by its own weight in the vertically upward direction, nor is it subjected to the stress caused by its contact in the vertically downward direction with the locking portion.

Thus, the invention recited in independent claim 38 (as it stood at the time of the previous response) does not result when Keihan is combined with Wang et al. Therefore, independent claim 38 (as it stood at the time of the previous response) is patentable over Keihan and Wang et al., as are dependent claims 42, 43, 46 and 47

IV. Claim 44 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Keihan, as applied to claim 38, in view of Bourdelais et al. (USPN 6,846,098).

However, claim 44 depends directly from independent claim 38, which was rejected under 35 U.S.C. § 103(a) as being unpatentable over Keihan in view of Wang et al. Therefore, any rejection of claim 44 using the rejection of claim 38 must include both Keihan and Wang et al., as well as Bourdelais et al. As this has not been done, the present rejection of claim 44 is improper

Bourdelais et al. does not remedy the above-noted deficiency of Keihan and Wang et al. Therefore, claim 44 is patentable over Keihan and Wang et al. also, even when considered in view of Bourdelais et al.

V. Claim 45 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Keihan, as applied to claim 38, in view of Okuno (U.S. 2001/0006461).

However, claim 45 depends directly from claim 38, which was rejected under 35 U.S.C. § 103(a) as being unpatentable over Keihan in view of Wang et al. Therefore, any rejection of claim 45 using the rejection of claim 38 must include both Keihan and Wang et al., as well as Okuno. As this has not been done, the present rejection of claim 45 is improper.

Okuno does not remedy the above-noted deficiency of Keihan and Wang et al. Therefore, claim 44 is patentable over Keihan and Wang et al. also, even when considered in view of Okuno.

VI. Claim 50 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Keihan, as applied to claim 48, in view of Wang et al. (U.S. 2001/0055075).

Claim 50 depends directly from amended independent claim 48. Wang et al. does not remedy the above-noted deficiency of Keihan. Therefore, claim 50 is patentable over Keihan in view of Wang et al.

INTERVIEW WITH THE EXAMINER

The courtesy of the interview conducted on October 11, 2007, is acknowledged and appreciated.

The above arguments were presented to the Examiner and her Supervisor at the interview and, as indicated in the Interview Summary, PTOL-413, they agreed that Keihan does not read upon the limitations of independent claims 35, 38 and 48. However, the Examiner and her Supervisor also indicated that amendments should be made to the claims to remove indefinite functional limitations (e.g., in cases where) and to provide consistency. The present amendments to independent claims 35, 38 and 40 are those requested by the Examiner and her Supervisor at the interview and are believed to remove the noted indefiniteness and provide consistency.

VIII. In view of the above, the allowance of claims 35-51, as amended, is respectfully solicited.

CONCLUSION

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Edward J. Wise (Reg. No. 34,523) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: November 13, 2007

Respectfully submitted,

By 

Charles Gorenstein
Registration No.: 29,271
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Road
Suite 100 East
P.O. Box 747
Falls Church, Virginia 22040-0747
(703) 205-8000
Attorney for Applicant